

# **EXHIBIT 43**



## Welcome to Terra's Research Forum

This forum will be set to **read-only from 1 June 2023**. For more details, please read the announcement here: [Transition of Terra Classic community channels to read-only](#)

View Latest Proposal here: [Terra Ecosystem Revival Plan 2 \[UPDATED AND FINAL\]](#)

Please note that the forum is solely for Research and Governance discussions only.

No admins will ever send you a private message.

## Terra on-chain liquidity parameters

**JumpTrading**

**Jan '21**

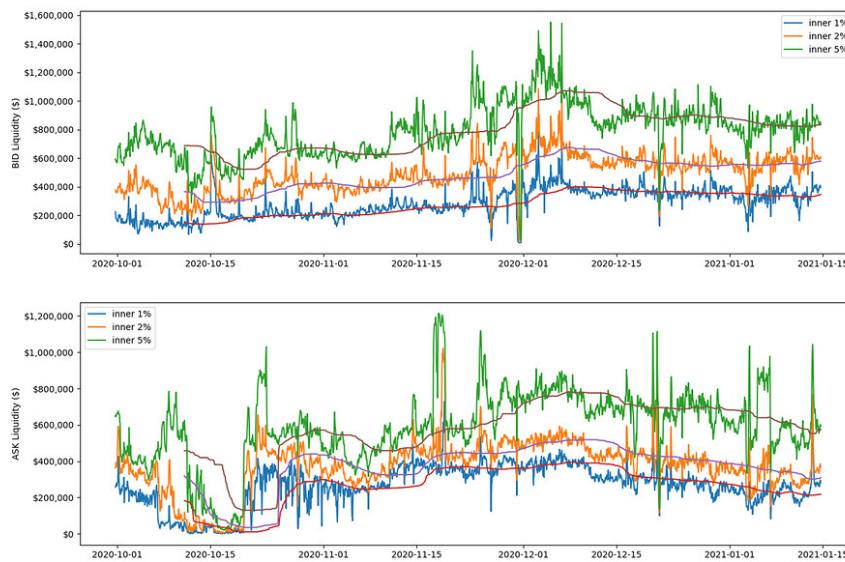
As discussed in recent governance proposals, the Terra <> Luna on chain swaps serve the critical function of maintaining the stability of Terra's stablecoins. A piece that has been less discussed is - past the initial bootstrapping using the SDR reserves, the on chain swap also serves as the only vehicle to facilitate expansions / contractions in the float of the Terra stablecoin economy.

Conservative on chain parameters can help protect the system from being bled by arbitrage or manipulation, but can also put a pretty strong cap on how much the float of Terra stablecoins can be increased/reduced by in a given time horizon. It's of course a fine line to walk, but one that's critical to get right to facilitate the growth of the Terra ecosystem in a responsible fashion.

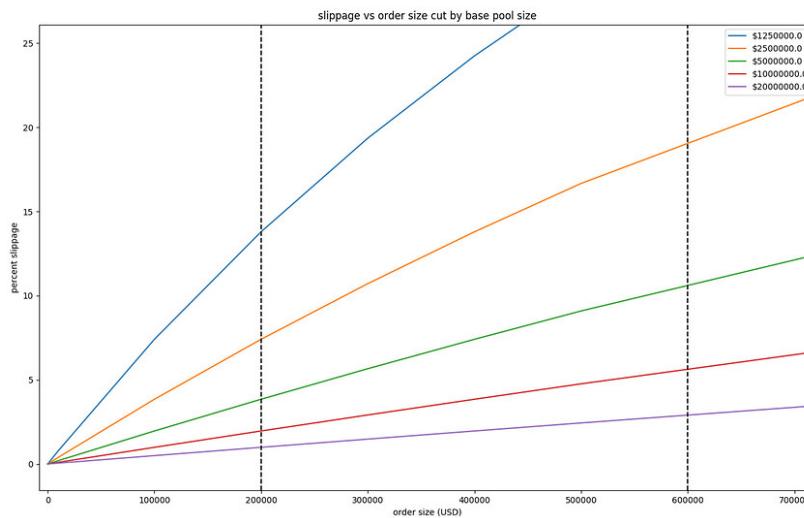
In order to protect against oracle manipulation attacks it's important that the on chain market not be more liquid than markets off chain. As the liquidity in LUNA on exchanges rises, matching (or getting just under) that liquidity on chain could be a good metric by which to adjust liquidity parameters.

The plot below shows the aggregate spot liquidity in LUNA pairs on both sides of the book. As we can see there's a ~\$200k within 1% of the best and ~\$600k within 5%. Adjusting the on chain curve to reflect this liquidity could serve as a good first order pass to ramp up liquidity

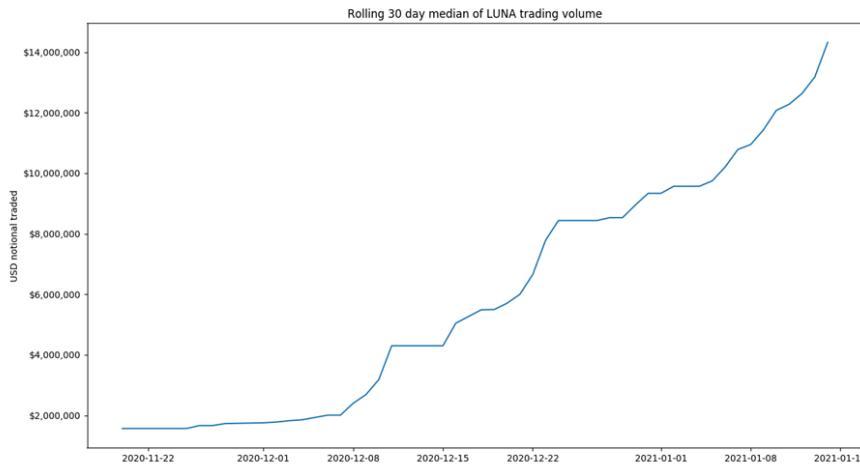
[Skip to main content](#)



As seen on the plot below a 10M USD = ~7M SDR pool would be a conservative base\_pool parameter to reflect this liquidity. This plot is exclusive of 50bp spread fee and sets on chain liquidity to a slight margin under the liquidity off chain



To reflect the volume that is actually done in the liquid LUNA markets, the pool\_decay time also needs to be adjusted to effectively 'refresh' the liquidity that's available on chain. As seen on the plot above, daily trade volume has been picking up over the last few weeks. Using \$10M USD as a rough estimate of the ADV, setting the pool decay time to 20 minutes would enable roughly as much notional to be traded within 2% of the best



As LUNA markets continue to evolve, and as more applications on the Terra chain continue to create demand for Terra stable coins, this piece warrants continuous monitoring. A monthly visit of this topic to look at the metrics discussed above to update on chain parameters and to continue to develop better methodology could be very beneficial

---

🔗 [TIP 36: Further improvements to liquidity parameters](#)

🔗 [Liquidity Parameters - 2](#)

🔗 [Burn the Remainder of the SDT Stability Reserve](#)

---

**dokwon**

**Jan '21**

Thank you for putting this together. A potential downside of this change is that for any trade > 200k it may be more capital efficient to swap Terra → Luna to acquire Luna, and swap Luna → Terra to divest. Have you considered that by improving the on-chain swap liquidity significantly, we may reduce secondary market liquidity for Luna? (no incentive to trade in secondary if primary is much more efficient)

---

**yjkim**

**Jan '21**

I agree to change various parameters as the demand for Terra increases.

Recently, I thought that we need to change the parameters continuously, but I am worried that change is too big.

I think it's too much to make a big change with only three months of results.

What are the benefits of Luna Holder and Terra Blockchain from this change? I'm worried about the change only for some traders.

[Skip to main content](#)

Could you share with a more detailed story that Luna holders should approve of this change?

Thank you.

**SebNondzee**

**Jan '21**

I voted in support of this proposal as i understand this is critical with the growing demand for UST ongoing at the moment.

One thing that I would like to clarify is why does the on-chain liquidity need to remain lower or equal to the off-chain liquidity - what are the implications of that ?

## New & Unread Topics

Topic	Replies	Views	Activity
<a href="#">Airdrop USTN to LUNC delegate only</a>	3	267	<a href="#">Nov '22</a>
<a href="#">Governance Proposal - Introducing the Luna Classic Council</a>	13	606	<a href="#">Nov '22</a>
<a href="#">Community terra (cust)</a>	48	1.5k	<a href="#">Jan 20</a>

Want to read more? Browse other topics in [or view latest topics.](#)